Total No. of printed pages = 8

END SEMESTER/RETEST EXAMINATION

May/June – 2026

Semester : 6th (Old)

Branch : Civil Engineering

Subject Code : CV-602

Subject Name : ESTIMATING - II

Full Marks – 70

Time – Three hours

The figures in the margin indicate full marks for the questions.

(Assume any missing data suitably.)

Instruction :

- *All* questions are compulsory.

1. Choose the correct answers : 1×5=5

   (a) Nominal roll is a part of

   (i) Measurement book

   (ii) Master roll

   (iii) Cash book

   (iv) None of these

[Turn over

(b) The unit of measurement for mass concrete is usually

(i) Cubic meter (ii) Square meter

(iii) Metric tons (iv) Linear meter

(c) In detailed estimate the volumes are worked out to the nearest

(i) $0.001m^3$ (ii) $0.005m^3$

(iii) $0.01m^3$ (iv) $0.05m^3$

(d) Earnest money is generally asked to be deposited

(i) at the time of purchase of tender document

(ii) at the time of submission of bid

(iii) by the successful bidder after he gets the letter of acceptance

(iv) at the time of entering the agreement

(e) The expected out turn of 2.5 cm cement concrete floor per mason per day is

(i) 2.5 sqm (ii) 5.0 sqm

(iii) 7.5 sqm (iv) 10 sqm

2. Fill in the blanks : 1×10=10

(a) A detailed description of the quality of materials and workmanship required to complete an engineering project in accordance with its drawings and details is known as the _____.

(b) The form used in public works for measurement is _____.

(c) Unit of measurement of Damp Proof Course (DPC) is _____.

(d) Once a tender is accepted, a deposit of about 5% of the total estimated cost of the work is called _____.

(e) The most appropriate method of calculating earthwork is _____.

(f) The capacity of doing work by a skilled labour in the form of quantity or work per day is known as _____.

(g) The bill on which final payment is made is known as _____.

(h) _____ book is maintained by a SDO with the sole purpose of checking the measurements made by a junior engineer.

(i) The lift up to 3.6m depth is multiplied by _____ to calculate the lead.

(j) Usually contractor's profit is taken at _____% for rate analysis of an item.

3. Write short notes on any *three* of the following : 3×3=9

(a) Contract agreement

(b) Lead and Lift

(c) E-tendering

(d) Earnest money

(e) Master roll.

4. Differentiate between the following (any *three*) : 3×3=9

(a) General specification and Detailed specification

(b) Running bill and Final bill

(c) Administrative approval and Technical sanction

(d) Tender and Contract Agreement.

5. Analyze the rate of the following items of work (any *two*) : 4.5×2=9

(a) 2.5 cm thick CC flooring

(b) 1st class brickwork in cement mortar (1:4) in superstructure

(c) Whitewashing 2 coats in new plastered surface.

6. (a) Explain the importance of specification. 3

(b) (i) Write down the general specification of first-class single-storey building. 6

Or

(ii) Write down the detailed specification of cement concrete (1:2:4) in foundation. 6

7. (a) (i) Explain the different types of measurement book. 5

Or

(ii) List down the common irregularities in Muster Rolls. 5

(b) Differentiate between lumpsum contract and item rate contract. 4

8. (a) RL of ground along the centerline of a proposed road from Chainage 10 to Chainage 18 is given below. The formation level at the 10th chainage is 107 and the road is in downward gradient of 1 in 150 up to chainage-14 and the gradient changes from 1 in 100 downward.

Formation width of the road is 10m and side slope of banking are 2:1(H:V). Length of the chain is 30m. Draw the longitudinal section of road and a typical cross-section and prepare an estimate of earthwork at the rate of Rs 300/m^3. 10

Chainage	10	11	12	13	14
RL of ground	105	105.60	105.44	105.90	105.42
Chainage	15	16	17	18	
RL of ground.	104.30	105.00	104.10	104.62	

Or

(b) Estimate the quantity of earthwork for an irrigation canal from the following data :

Bed width = 6m, Top width of left bank = 3m, Top width of right bank = 1.5m, side slope in cutting and filling = 2:1, height of bank

from canal bed = 2.6m. Downward longitudinal slope of canal bed = 1 in 5000. RL of canal bed = 100m. 10

RL of GL(m)	100.20	100.30	100.46
Chainage (m)	250	300	350
RL of GL(m)	100.50	100.10	98.55
Chainage (m)	400	450	500

COURSE OUTCOME (CO)		
Question Nos.		CO
1.	(a)	6
	(b)	1
	(c)	1
	(d)	5
	(e)	2

2.	(a)	3
	(b)	6
	(c)	1
	(d)	5
	(e)	1
	(f)	2
	(g)	6
	(h)	6
	(i)	1
	(j)	2
3.		1, 5, 6
4.		3, 5, 5
5.		2
6.		3
7.		6, 5
8.		1